

Management Framework

The **Environmental Management System (EMS)** is the primary method of managing the environmental programs and improving environmental quality throughout the installation, including all tenant commands.

Leadership is provided by an Environmental Top Management Council (ETMC) chaired by the Commanding Officer and supported by the Installation Program Directors (IPDs) and major tenant. The ETMC, facilitated by the Installation Environmental Program Director (IEPD), conducts a management review annually and reviews progress quarterly to promote continuous improvement. The ETMC is the Cross Functional Team that sets and achieves the EMS objectives and targets.

The installation EMS achieved conformity in 2009 and has exceeded Executive Order Sustainability Goals in the areas of energy, water and solid waste diversion. Having made these initial award winning achievements to improve Environmental Quality, the ETMC broadened the focus to other areas while continuing to reduce environmental impacts. A two year effort was launched to improve the program which led to development of new and innovative management tools and a more effective integration of the program into the existing facilities and mission management framework

New Approach

The **internal self-assessment (ISA)** for FY 2010 was completed and presented to the top management in October 2010. EMS conformity was achieved in March 2009 and the ISA evaluated the overall effectiveness of the EMS in order to identify improvement opportunities. Two questions were posed: *Were tenants / practice owners responsive to the environmental programs? Was Environmental supportive of the mission operators?*

Management concerns were: Ensuring consistent compliance performance, applying a realistic level of effort, and program integration with minimal distraction from core mission. A deficiency trend analysis revealed that lack of effective training was the top causal factor for non-compliance.

Conclusion: A program transformation was needed to sustain compliance and readiness, especially with reduced resources and higher demand for readiness. The primary **management challenge** identified was to ensure collaboration among various tenant commands to create a single, cohesive installation-wide program. **Success criteria** for the planned program improvements were set by the ETMC:

- Fully supportive of operations
- Truly integrated with facilities management
- Efficient to maximize mission

Improvement Initiatives



Four Focus Areas were chosen by the ETMC. The goal was to **enhance engagement** and **improve integration** across the installation. It was recognized that support was needed both from top management in the form of **active leadership**, and also from the environmental support staff to develop better compliance **management systems**. Top management initiated a clear drum beat of monthly progress reviews by the ETMC and weekly compliance checks at command staff meetings. **Leadership** aimed to cultivate an ownership ethic to make compliance and stewardship second nature.

Integration

The two key areas to focus on for improved integration were selected based upon compliance risk, importance to mission, and opportunity to create the greatest benefits.

NMC-SB, which owns the largest concentration of environmental aspects, developed a strategic goal for compliance management. In consultation with the IEPD, NMC SB created an integrated training program, developed practical compliance tools, and reduced hazardous waste generation.

NAVFAC PWD SB, as the facilities life-cycle manager, launched an initiative to better dove tail environmental planning / compliance requirements into existing business processes which has helped to streamline the execution process, reduce environmental impacts and improve compliance.

The theme in both cases was to simplify things for the practice owners and to learn how teams could work better to achieve *Environmental Readiness*.

Innovations and Accomplishments

Engagement was improved by developing a **SMART Shop Process**. Environmental staff worked together with tenant and shop supervisors to develop simple, easy-to-use compliance tools, such as the SMART Binder, training materials, and practice owner self-checklists. The IEPD shifted staff time away from performing frequent routine equipment / process compliance inspections in order to invest in deploying a **comprehensive training program** and developing improved **compliance system tools**.

The SMART Shop Process was developed to engage practice owners and to enhance support from Environmental. The objective was to initiate an effective face-to-face dialog between supervisors and the Environmental Office, streamlining compliance management. Process development and deployment were undertaken in FY 2011 and completed in FY 2012. The SMART Shop Process, managed by the EMS Coordinator, entails mapping a building-specific inventory of all “Environmental Points” (EPs).

SMART Binders were assembled and issued to all tenants and supervisors who own a high number of EPs and include building specific compliance and environmental aspects information. The Binders are the result of environmental staff, the supervisor and ENV Coordinator jointly reviewing shops processes, compliance requirements and training needs, and provides a one-stop, simple guide to help them meet their compliance responsibilities. Shop specific contents include: A map of EPs, a simplified monthly self-check list, relevant environmental management plan sections, a shop HazMat Authorized Use List, HazWaste profiles, training rosters / certificates, spill response information and information regarding the EMS.



Marcelle Miller, EMS Coordinator, on a SMART Shop walk-through with USMC Reserves.



The SMART Shop Process is a “best-in-class” example in the Navy’s Advancing the EMS course.



CDR Werring presents a Green E to Standard Missile Shop.

The Green E is issued when the SMART Shop is certified “EMS Conformant” by the IEPD and Executive Officer. The SMART Shop Process is part of the EMS Internal Assessment Program (IAP).

Supervisors perform monthly self-checks (IAP Tier 1) and report results to the EMS Coordinator. The Environmental staff performs less frequent Tier 2 audits and an annual Tier 3 review of all shops. This feeds into the command Zone Inspection Program through which the installation Executive Officer personally inspects all facilities annually. ENV management plans and EMS information is updated as part of the Tier 3 review and the EMS certificate is renewed.

Training Program – The Environmental Training Program is managed by the Compliance Manager and supported by tenant training coordinators who are now designated as ENV Training Coordinators (ETCs). Building off of the SMART Shop Process, customized training plans were able to be easily created. Collaboration with supervisors and ETCs helped to ensure that only necessary training was assigned. Training needs were categorized as “Legally Required,” “Required to Comply with Legal Requirements” and “Required by Navy Policy/Plans.” For larger organizations such as NMC, topics were customized and delivered on-site as a component of the operational training program.



Edgar Espinoza gives bilingual spill response training

Adaptation of ECATTS - The Navy’s online environmental training system, ECATTS, was fully deployed by developing ten installation and topic specific modules. The Compliance Manager worked with the ECATTS contractor to tailor the system for both simplified end-user registration and customized content. Since ECATTS was not initially intended to track training to the supervisor level, an installation registration guide and ETC alpha-roster spreadsheet were created. This enabled creation of a training readiness “dashboard” for leadership to monitor progress and to direct support for the Environmental Training Program.



The ECATTS adaptation was recognized by the External Audit Team as a “Noteworthy Practice.”

The Environmental Coordinator (EC) Program was revitalized and expanded to reach tenant commands. Quarterly meetings were invigorated with meaningful demonstrations and hands-on exercises. Supervisors are now actively engaged with their ECs, and ECs are communicating more openly and frequently with Environmental staff.



ECs participate in a small spill exercise.

RESULTS - The teamwork and training efforts created a better understanding of operational processes by environmental staff and Hazardous Waste (HW) regulations by practice owners. Environmental quality benefits include:

- NMC compliance deficiencies reduced by 80%
- NMC reduced HW by 53% (initial figures)

The reduction of HW was accomplished through:

- Practice Owners trained to segregate HW
- Targeted sampling / re-classification of waste streams
- Initiated rag reuse and empty container recycling programs

Command Directives were significantly revised to incorporate improvements and ensure program continuity. These include:

- Environmental Programs and EMS Instruction
- Environmental Aspect & Requirements Review / NEPA Instruction
- EMS Procedures Manual w/SMART Shop, Training Program and records management Procedures

System Improvement Initiatives



Compliance Data and Records

NAVWPNSTA Seal Beach is a **pilot installation** for the EMS Web, an enterprise-wide program management data system. Seal Beach has beta tested and fully deployed all components of the system, which includes:

- Environmental aspect and compliance data from the SMART Shop Process
- Building specific, multi-media checklists
- Internal Assessment Plan schedule
- Compliance Performance Dashboards
- Annual Self-Assessment Audit Report
- Compliance and EMS Records / Documents
- Compliance and Corrective Action Tracking

Using EMS Web to revamp system tools for compliance management and record keeping was critical to advancing the Environmental Team’s effectiveness, without which improved practice owner engagement and support to mission would not have been possible.

The EMS Web Dashboard, now available Navy wide, is based upon the model compliance metric created at Seal Beach in 2011. The dashboard enables the IEPD to readily provide leadership with performance information so that they may act to correct deficiencies and drive improvement.



Seal Beach EMS Web data account is frequently shared with other installations as a model.

Environmental Aspects & Requirements Review (EARR) Process is the EMS mechanism for monitoring changes to facilities and operations in order to identify environmental impacts and compliance requirements. The National Environmental Policy Act (NEPA) is also satisfied. The EARR process, in place since 2008, was evaluated in 2011 by a PWD interdisciplinary team in order to enhance the process. In 2012, the team directly integrated environmental considerations into the NAVFAC PWD business processes for planning, design and construction.

Construction Compliance - Similar to SMART Shop self-check lists, an EARR compliance checklist was created for project/construction managers. This aids oversight of contractors to ensure compliance. Permitting and record-keeping requirements are understood up-front and met on-time, reducing risk and improving overall project execution time lines.

Pollution Prevention – Through the EARR process pollution prevention opportunities were successfully implemented. As an example, new Low Impact Development (LID) criteria for improvement of storm water quality has been incorporated into facility projects. Through the multi-discipline and interactive EARR process, better awareness of environmental aspects and impacts was created. The EARR Coordinator established an in-house capability to perform LID Analysis for small projects (less than one acre), thereby reducing contracted engineering costs and project development time.



Noteworthy Practice: LID features integrated through the EARR process were recognized by the External Audit as a "Noteworthy Practice."

Project Accomplishments

Through the EARR Process, **energy conservation** and **water quality** were improved for projects such as the 2012 USMC Reserve Training Center. New LID techniques include: bio-infiltration native gardens, infiltration basins, vegetated swales, and linear bio-retention in parking areas. The building is Gold LEED Certified.



Improving storm water quality through LID techniques

Significant Accomplishments

Environmental Quality is improved through the achievement of Sustainability Goals, also called EMS Objectives and Targets. The EMTC reviews and updates EMS O&Ts annually and considers the installation’s significant environmental aspects, emerging issues, the DoD strategic sustainability goals, and other factors. **New Goal:** Hazardous Waste was added as a significant aspect in 2011.

Goal Owners, established by the ETMC, champion the planning and achievement of the installation’s Sustainability Goals. Much of the progress depicted in the score card below is credited to the Goal Owners, however, since opportunities to reduce impacts have been realized, the next phase of improvement has become more challenging. Recognizing this fact, the Goal Owners and the ETMC realized that new approaches would need to be employed.

Achievement through Integration and Engagement – Building upon the SMART Shop Process and enhanced EARR Process, tenants, practice owners and facilities planners and designers have been brought on board to help advance achievement of the Sustainability Goals. Two examples are:

The Sustainable Solid Waste (SSW) Program expanded outreach to practice owners and actively participated in the EARR Process to ensure contracts included solid waste diversion objectives. Additionally, the following were maintained: Qualified Recycling Program (QRP), Municipal Solid Waste (MSW), Construction and Demolition (C&D) debris diversion, and Class III Property (C3P) reuse service.

The Resource Efficiency Manager (REM) continued to implement and plan for future energy saving projects to achieve a 32% reduction in electricity usage. To achieve further reductions an Advanced Metering Infrastructure (AMI) was completed and the SMART Shop and EC programs were used as a spring board to set-up a more effective Energy Monitor program. The REM, working with practice owners and Building Energy Monitors, has interpreted AMI data to successfully identify and mitigate energy deficiencies. After only 6 months of data, over \$75,000 in annual energy cost savings opportunities have been identified.

Installation “SUSTAINABILITY SCORE CARD”

EMS Objective and Targets	Baseline	FY 2010	FY 2011	FY 2012	Progress 2011-2012
Electricity (utility provided) is reduced by 30% in 2015 from a 2003 baseline. Seal Beach (MBtu/KSF)	44.24	32.56	31.1	30.21%	32% ↓
Renewable Energy is increased from a zero baseline by 5% in 2012 and 7.5% in 2015 Seal Beach (Mbtu/KSF)	0	3%	6.30%	7.10%	8% ↑
Water Consumption (utility provided) is reduced by 5% per yr, and 40% by 2015 from a 2007 baseline. (KGAL/KSF)	67.01	46.81	43.61	54.34	19% ↓
Solid Waste Diversion rate is increased by 6% annually over 2008 baseline to a 50% diversion rate by 2015.	22.78%	47.36%	62.97%	64.84%	42% ↑
Construction and Demolition waste diversion rate to exceed 50% from a 2008 baseline.	72.62%	97.88%	98.59%	98.59%	26% ↑
Hazardous Waste: Reduce RCRA HW generation by 10% by 2014 from a FY11 baseline.	49,737	0	49,737	23,350	53% ↓

Stakeholder and Community Involvement



America Recycles Day – Regional Sustainable Solid (SSW) Waste Program (Recycling ++)

The Installation SSW Coordinator and Recycling Team partnered with Environmental staff to promote waste diversion and recycling at various activities throughout the two year period, such as 5K runs and Earth Day events. Initiated in 2011, the event focuses on a recycling round-up, including eWaste.



Outreach – McGaugh Elementary School

The Environmental staff provided outreach to local 3rd graders at McGaugh Elementary School. The NAVWPNSTA Seal Beach Conservation Program Manager met with students to highlight the military’s commitment to preserving natural resources while safeguarding the military mission and to discuss how their actions can help protect endangered species.



Open House Events

The Environmental Team took advantage of several open house events to provide outreach to community members and station personnel. An MOV, or “Mobile Outreach Vehicle,” has been created to provide on-the-go audio/visual displays for visitors. The most recent event, a ship open house, hosted over 5,000 community visitors.



U.S. EPA Marine Debris Pilot Study / Beach Clean-up

In collaboration with the EPA, station personnel hosted a pilot program designed to understand the source of marine debris. Over 200 station employees and community volunteers from the Boeing Company collected and characterized debris that had washed up on a Navy beach. Congressman Dana Rohrabacher also spoke at the event. The information will be used by EPA to assist manufacturers in the design of environmentally friendly packaging.



National Public Lands Day Events

In partnership with the Seal Beach National Wildlife Refuge and the Friends of Seal Beach National Wildlife Refuge, the station hosts annual National Public Lands Day events. For the past nine years, Legacy funds have supported the planting of native plants by station and community volunteers, including local school and scout groups. This year’s event saw over one hundred volunteers plant over 750 native plants.



Sustainability FairE – 5th Annual

The centerpiece of the internal awareness program is the annual Sustainability FairE. The focus is to promote an understanding of sustainability and to enlist employees to change habits at home as well as work to reduce their environmental footprint. Key departments, tenants, local environmental agencies, and businesses set up over 30 informational booths for over 300 participants. New for this year: Elementary school teachers included educational booths into their curriculum. Pictured here, a 2nd grader explains water conservation to a station employee.